Towards methodological standardization of the European alternative measures of economic welfare

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Outline

1. AMEWs in Europe
2. Methodological differences
3. Impact
4. Towards standardisation
AMEWs

- alternative measures of economic welfare (AMEWs), e.g. ISEW and GPI
- measures the contribution of a nation’s economy to the well-being of its citizens (economic welfare)
- looks at costs and benefits of economic activities to determine the optimal physical scale of the economic system
Methodology

ISEW =

Benefits

‣ private consumption expenditures (+)
‣ welfare losses from income inequality (-)
‣ value of household work (+)
‣ non-defensive public expenditures (+)

Costs

‣ defensive private expenditures (-)
‣ capital adjustments (+/-)
‣ costs of environmental degradation (-)
‣ depreciation of natural capital (-)
Europe

• most compilations are one-off academic efforts ~ little to no policy impact

• two exceptions:
  ▸ ISEW for Flanders
    (Flemish Environment Agency)
  ▸ NWI for Germany and different Ländern
    (German Ministry for the Environment and the Federal Environment Agency)
Flanders
Flanders

- ISEW compiled for the first time 2011
- annual updates
- occasionally used in research projects as an alternative to GDP (e.g. green tax reform)
- part of a set of indicators on green economy
- federal level: law on alternative indicators
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Low comparability

• methodological differences between the ISEW and NWI result in low comparability of the estimated economic welfare levels

• data availability & country-specific problems

• often reported as one of the most important barriers to AMEWs (e.g. Bleys and Whitby, 2015)

• impact?
Methodologies

• differences in items
  ‣ Flanders: defensive private expenditures / costs of ozone layer depletion
  ‣ Germany: value of volunteering, costs of crime, costs of alcohol, tobacco and drug use, loss (or gains) of biodiversity, costs of nuclear energy
Methodologies

• differences valuation methods
  ‣ private consumption expenditures
  ‣ welfare losses from income inequalities
  ‣ costs of climate change
  ‣ replacement costs of non-renewable energy
  ‣ ...

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ISEW’ and NWI’

• compile NWI for Flanders
• work-in-progress: focus on the most important items (>2.5% of NWI)
• 11 items remain
• near future: full comparison ~ data problems more persistent for “smaller” items…
ISEW’ vs NWI’

€/capita (2005 prices)
## ISEW’ vs NWI’ (1990-2013)

<table>
<thead>
<tr>
<th>Item</th>
<th>NWI’</th>
<th>ISEW’</th>
</tr>
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<tbody>
<tr>
<td>K-2 Weighted consumption expenditures</td>
<td>+62,3%</td>
<td>+18,9%</td>
</tr>
<tr>
<td>K-3 Value of household production</td>
<td>+9,3%</td>
<td>+7,2%</td>
</tr>
<tr>
<td>K-4 Value of voluntary work</td>
<td>+9,9%</td>
<td>n.a.</td>
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<tr>
<td>K-5 Public expenditures health &amp; education</td>
<td>+41,1%</td>
<td>+41,1%</td>
</tr>
<tr>
<td>K-7 Costs of commuting</td>
<td>+21,1%</td>
<td>+22,3%</td>
</tr>
<tr>
<td>K-8 Costs of traffic accidents</td>
<td>-48,0%</td>
<td>-48,0%</td>
</tr>
<tr>
<td>K-10 Costs of alcohol, tobacco and drug abuse</td>
<td>+0,0%</td>
<td>n.a.</td>
</tr>
<tr>
<td>K-11 Pollution abatement (private)</td>
<td>+37,6%</td>
<td>+37,6%</td>
</tr>
<tr>
<td>K-14 Damage from air pollution</td>
<td>-52,1%</td>
<td>-44,3%</td>
</tr>
<tr>
<td>K-18 Replacement costs of non-renewables</td>
<td>+9,6%***</td>
<td>+9,6%</td>
</tr>
<tr>
<td>K-19 Damage from GHG emissions</td>
<td>-18,9%</td>
<td>+188,1%</td>
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</tbody>
</table>
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Standardization

- problems with incompatible data & differences in cost estimates
- interesting exercise - e.g. double counting, final energy use vs. primary energy consumption, …
- extend effort to other groups / continents (e.g. GPI 2.0) to join forces
Standardization

• solid theoretical framework is necessary
• psychic income (psychic services today) vs. cost-benefit analysis of current activities
• current methodologies are not in line with either interpretation
• required if AMEWs are to challenge GDP
Thank you!

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